

## **Appendix C**

### **Water Chemistry Data**

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#### **INDUSTRIAL LIGHT METALS SITE**

Summary of Groundwater Analytical Results – VOCs

Summary of Groundwater Analytical Results – Total Petroleum Hydrocarbons

Summary of Groundwater Analytical Results – Metals

Summary of Natural Attenuation Parameters

#### **DEL AMO STUDY AREA**

Trilinear Piper Diagrams

**INDUSTRIAL LIGHT METALS SITE**

**Summary of Groundwater Analytical Results – VOCs**

TABLE 4.6

SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS (VOCS)  
FORMER ILM FACILITY, TORRANCE, CALIFORNIA

Page 1 of 5

VOLATILE ORGANIC COMPOUNDS <sup>III</sup> (in µg/L) BY EPA METHOD 8260													
SAMPLE ID	SAMPLE DATE	TCE	PCE	1,1-DCA	1,1,1-TCA	Bromodi-chloro-methane	Chloroform	Bromoform	1,2-Dichloro-propane	Cis-1,2-DCE	Trans-1,2-DCE	Benzene	Dibromo-chloro-methane
P-1	1/24/95	22,000	38	0.53	9.7	0.74	1.3	ND(0.5)	ND(0.5)	2.2	NA	ND(0.5)	ND(0.5)
	3/17/95	23,000	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)
	12/27/95	24,000	ND(600)	ND(0.5)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)
	1/2/96(D)	23,000	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)	ND(600)
	3/19/96	22,000	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)
	6/26/96	24,000	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)
	6/26/96(D)	23,000	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)	ND(900)
	9/18/96	23,000	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)	ND(2,000)
	7/10/97	15,000	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	7/10/97(D)	15,000	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	3/4/99	8,100	83	1.7	10	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/16/99	10,000	78	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
P-2	1/27/95	87	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)
	3/17/95	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)
	12/27/95	ND(5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/19/96	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/19/96(D)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	6/20/96	0.52	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	6/20/96(D)	0.59	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	9/17/96	0.92	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/8/97	11	7.9	ND(0.5)	19	110	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/2/99	0.70	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/13/99	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
P-3	1/24/95	140	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/17/95	26	ND(0.5)	ND(0.5)	1.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	12/20/95	50	ND(0.5)	ND(0.5)	1.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/14/96	56	ND(0.5)	ND(0.5)	2.7	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	6/19/96	52	ND(0.5)	ND(0.5)	3.0	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	9/11/96	64	ND(5)	ND(5)	3.4	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	7/8/97	35	ND(0.5)	ND(0.5)	2.3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/2/99	39	ND(0.5)	ND(0.5)	2.3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/14/99	62	ND(2)	ND(2)	2.7	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
	1/26/95	2,500	ND(50)	ND(50)	86	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	3/17/95	2,200	ND(60)	ND(60)	77	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)
	12/21/95	3,400	ND(100)	ND(600)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
	3/18/96	3,500	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)
	9/16/96	3,500	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)
	7/9/97	1,500	ND(30)	ND(30)	71	54	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)

WELL ABANDONED 10/97

TABLE 4.6

**SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS (VOCs)  
FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

SAMPLE ID	SAMPLE DATE	VOLATILE ORGANIC COMPOUNDS <sup>**</sup> (in $\mu\text{g/L}$ ) BY EPA METHOD 8260															
		TCE	PCE	1,1-DCA	1,1-DCE	1,1,1-TCA	Bromodichloro-methane	Bromoform	1,2-Dichloro-propane	1,2-DCE	Cis-1,2-DCE	Dibromo-chloro-methane	Toluene	Ethyl benzene	Total Xylenes	Vinyl Chloride	1,1,2-TCA
P-5	1/26/95	27	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	NA	ND(3)	ND(3)	ND(3)	ND(3)
	3/17/95	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	NA	ND(3)	ND(3)	ND(3)	ND(3)
	12/27/95	2.5	ND(0.5)	0.62	0.87	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.51	ND(3)	ND(3)	ND(3)	ND(3)
	3/19/96	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	190	ND(3)	ND(3)	ND(3)	ND(3)
	6/25/96	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	180	ND(5)	ND(5)	ND(5)	ND(5)
	9/17/96	1.1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(7)	ND(7)	ND(7)	ND(7)
	9/17/96(D)	1.0	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
P-6	3/16/95	510	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	NA	ND(10)	ND(10)	ND(10)	ND(10)
	12/20/95	570	ND(5)	18	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/18/96	510	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	6/20/96	500	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	9/12/96	520	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	7/9/97	5300	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
	WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		
P-6B	3/3/99	280	7.4	ND(0.5)	1.2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/14/99	420	7.8	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/17/95	2,500	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
	3/17/95(D)	2,400	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
	12/21/95	1,700	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	3/18/96	1,500	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	6/24/96	1,700	ND(70)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)	ND(200)
P-7	9/16/96	1,700	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	7/9/97	3,200	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)
	3/4/99	900	13	ND(5)	2.2	ND(5)	7.8	ND(5)	7.2	ND(5)	12	ND(5)	3.3	ND(5)	ND(5)	ND(5)	ND(5)
	7/15/99	1,100	9.7	ND(5)	6.8	ND(5)	6.4	ND(5)	10	ND(5)	85	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/16/95	3,100	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)	ND(60)
	WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		WELL ABANDONED 8/96		
	3/16/95	910	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	NA	ND(30)	ND(30)	ND(30)	ND(30)
P-8	12/20/95	1,100	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/18/96	1,100	ND(50)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)	ND(40)
	6/26/96	1,300	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	9/12/96	1,200	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	7/9/97	1000	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		WELL ABANDONED 10/97		
	3/3/99	280	1.70	ND(0.5)	4.50	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
P-9	7/14/99	410	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/16/95	2.8	ND(0.5)	0.64	ND(0.5)	0.60	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	12/19/95	1.2	ND(0.5)	0.55	ND(0.5)	0.55	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/14/96	0.62	ND(0.5)	ND(0.5)	ND(0.5)	ND(0											





TABLE 4.6

**SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS (VOCs)  
FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

SAMPLE ID	SAMPLE DATE	VOLATILE ORGANIC COMPOUNDS <sup>(a)</sup> (in $\mu\text{g/L}$ ) BY EPA METHOD 8260																
		TCE	PCE	1,1-DCA	1,1,1-TCA	Bromo-chloro-methane	Chloroform	Bromodi-chloro-propane	1,2-Dichloro-propane	Cis-1,2-DCE	Trans-1,2-DCE	Dibromo-chloro-methane	Toluene	Benzene	Ethyl benzene	Total Xylenes	Vinyl Chloride	1,1,2-TCA
P-22	12/20/95	1,200	8.2	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(1)	ND(1)	ND(5)	ND(5)
	3/18/96	1,200	12	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.1)	ND(0.1)	ND(5)	ND(0.5)
	6/20/96	1,400	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	9/12/96	1,000	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)	ND(70)
	7/9/97	1,200	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	3/3/99	1,100	30	1.5	18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/15/99	1,300	19	ND(10)	14	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
	12/20/95	160	0.53	3.6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/14/96	100	0.57	ND(0.5)	0.60	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	6/20/96	100	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
P-23	9/11/96	96	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	7/8/97	89	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)
	WELL ABANDONED 10/97																	
	12/20/95	430	ND(5)	ND(5)	5.4	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
	3/19/96	380	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
	6/24/96	330	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
	9/17/96	320	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)
	9/17/96(D)	350	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)	ND(30)
	7/9/97	120	ND(3)	ND(3)	15	72	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)
	3/3/99	210	0.99	ND(0.5)	1.4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/15/99	210	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)	ND(3)
	12/26/95	14,000	6,900	500	2,000	1,300	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
P-24	3/19/96	15,000	4,800	ND(700)	1,800	730	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)
	6/26/96	16,000	4,700	ND(500)	1,600	760	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	9/18/96	14,000	3,300	ND(500)	1,200	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	7/10/97	13,000	2,100	ND(300)	910	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)
	7/10/97(D)	12,000	1,800	ND(500)	810	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	WELL ABANDONED 10/97																	
	12/20/95	430	ND(5)	ND(5)	5.4	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
P-25	3/19/96	15,000	4,800	ND(700)	1,800	730	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)
	6/26/96	16,000	4,700	ND(500)	1,600	760	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	9/18/96	14,000	3,300	ND(500)	1,200	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	7/10/97	13,000	2,100	ND(300)	910	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)	ND(300)
	7/10/97(D)	12,000	1,800	ND(500)	810	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)	ND(500)
	WELL ABANDONED 10/97																	
	12/26/95	14,000	6,900	500	2,000	1,300	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)
	3/19/96	15,000	4,800	ND(700)	1,800	730	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)	ND(700)
	6/26/96	16,000	4,700	ND(500)	1,600	760	ND(500)	ND(500)	ND(500)	ND(500)	ND(500							

TABLE 4.7

**SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS (VOCS)  
BRC PROPERTY, TORRANCE, CALIFORNIA**

VOLATILE ORGANIC COMPOUNDS <sup>(1)</sup> (in $\mu\text{g/L}$ ) BY EPA METHOD 8260																		
SAMPLE ID	SAMPLE DATE	TCE	PCE	1,J-DCA	1,J-DCE	1,1,1-TCA	Bromoform	Chloroform	1,2-Dichloropropane	Trans-1,2-DCE	Cis-1,2-DCE	Dibromo-chloromethane	Toluene	Ethyl benzene	Total Xylenes	Vinyl Chloride	Carbon Tetrachloride	1,1,2-TCA
BL-1	3/4/99	6.6	ND(0.5)	1.0	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.57	ND(0.5)	15	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	3/4/99 <sup>(2)</sup>	6.8	ND(0.5)	0.95	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.60	ND(0.5)	14	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	7/13/99	5.2	ND(0.5)	0.7	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	15	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
BL-2	3/3/99	250	0.91	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.81	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)
	7/14/99	460	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(10)	ND(5)	ND(5)	ND(5)
BL-3	3/3/99	720	73	0.72	3.8	2.1	ND(0.5)	ND(0.5)	3	ND(0.5)	ND(0.5)	ND(0.5)	0.76	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)
	7/15/99	1,200	77	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(20)	ND(5)	ND(5)	ND(5)	ND(5)
BL-4	3/2/99	58	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(20)
	7/14/99	49	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(5)	ND(5)	ND(5)	ND(20)
BL-5	3/4/99	4.1	ND(0.5)	0.54	1.3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.8	ND(0.5)	3.2	71	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)
	7/13/99	2.7	ND(0.5)	0.56	0.79	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.4	ND(0.5)	0.55	110	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)
BL-6	3/1/99	6,700	2.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	11	ND(0.5)	0.65	15	ND(0.5)	0.60	0.84	ND(0.5)	1.1
	7/16/99	5,600	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(100)	ND(50)	ND(50)	ND(50)
BL-7	7/16/99 <sup>(3)</sup>	5,600	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)	ND(50)
	3/2/99	32	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.67	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)
BL-8	7/14/99	23	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)
	3/2/99	23	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)
	7/13/99	18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	1.0	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)

<sup>(1)</sup>Only detected analytes are reported in table; results of all analyses are reported in laboratory reports.

<sup>(2)</sup>Duplicate sample for BL-1 is identified as B-17 in laboratory reports.

<sup>(3)</sup>Duplicate sample for BL-6 is identified as B-15 in laboratory reports.

**µg/L**  
ND( ) Analyte not detected above the practical quantitation limit (in parentheses)  
TCE Trichloroethene  
PCE Dichloroethene  
DCA Trichloroethane  
DCE Dichloroethene  
TCA Trichloroethane  
- Not sampled

99-200WWRPis/DGwARcFa (11/15/99/dm)

**INDUSTRIAL LIGHT METALS SITE**

Summary of Groundwater Analytical Results – Total Petroleum Hydrocarbons

**TABLE 4.8**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL PETROLEUM HYDROCARBONS (TPH)**  
**FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

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SAMPLE ID	SAMPLE DATE	TPH <sup>10</sup> (in µg/L) BY EPA METHOD 8015M			
		TPH-c/w	TPH-d	TPH-k/Jet Fuel	TPH-z
P-1	1/24/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/17/95	ND(1,000)	1,200	ND(200)	ND(1,000)
	12/27/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/27/95(D)	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	310	ND(200)	ND(1,000)
	6/26/96(D)	ND(1,000)	330	ND(200)	ND(1,000)
	9/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	7/10/97(D)	ND(500)	ND(200)	ND(200)	ND(1,000)
	3/4/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/16/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-2	1/27/95	ND(10,000)	ND(2,000)	22,000	ND(10,000)
	3/17/95	ND(22,000)	ND(4,000)	40,000	ND(20,000)
	12/27/95	ND(40,000)	ND(8,000)	60,000	ND(40,000)
	3/19/96	11,000	ND(2,000)	19,000	ND(10,000)
	3/19/96(D)	14,000	ND(2,000)	22,000	ND(10,000)
	6/20/96	7,500	ND(200)	16,000	ND(1,000)
	6/20/96(D)	6,000	ND(200)	13,000	ND(1,000)
	9/17/96	4,600	ND(1,000)	ND(1,000)	ND(2,000)
	7/8/97	ND(10,000)	ND(4,000)	20,000	ND(20,000)
	3/2/99	ND(2,000)	ND(400)	2,300	ND(2,000)
P-3	7/13/99	1,800	490	ND(200)	ND(1,000)
	1/24/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/17/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/20/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/14/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/19/96	ND(1,000)	310	ND(200)	ND(1,000)
	9/11/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	3/2/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-4	7/14/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	1/26/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/17/95	ND(1,000)	300	ND(200)	ND(1,000)
	12/21/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	2,600	ND(200)	ND(200)	ND(1,000)
	9/16/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-5	7/9/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
	1/26/95	ND(10,000)	15,000	ND(2,000)	ND(10,000)
	3/17/95	ND(5,000)	10,000	ND(1,000)	ND(5,000)
	12/27/95	ND(8,000)	11,000	ND(2,000)	ND(8,000)
	3/19/96	ND(5,000)	11,000	ND(1,000)	ND(5,000)
	6/25/96	ND(5,000)	8,200	ND(1,000)	ND(5,000)
P-6	9/17/96	ND(4,000)	5,200	ND(800)	ND(4,000)
	9/17/96(D)	ND(2,000)	5,000	ND(400)	ND(2,000)
	3/16/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/20/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/20/96	ND(1,000)	230	ND(200)	ND(1,000)
P-6B	9/12/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
WELL ABANDONED 10/97					
P-6B	3/3/99	1,100	ND(200)	ND(200)	ND(1,000)
	7/14/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)

**TRC**

**TABLE 4.8**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL PETROLEUM HYDROCARBONS (TPH)**  
**FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

Page 2 of 4

SAMPLE ID	SAMPLE DATE	TPH <sup>(1)</sup> (in µg/L) BY EPA METHOD 8015M			
		TPH-c/w	TPH-d	TPH-k/Jet Fuel	TPH-z
P-7	3/17/95	ND(1,000)	220	ND(200)	ND(1,000)
	3/17/95(D)	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/21/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/24/96	ND(1,000)	200	ND(200)	ND(1,000)
	9/16/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	3/4/99	ND(1,000)	270	ND(200)	ND(1,000)
	7/15/99	ND(1,000)	ND(200)	ND(200)	ND(200)
P-8	3/16/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 8/96				
P-9	3/16/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/20/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	570	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	330	ND(200)	ND(1,000)
	9/12/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	WELL ABANDONED 10/97				
P-9B	3/3/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/14/99	1,400	ND(200)	ND(200)	ND(1,000)
P-10	3/16/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	12/19/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/14/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/11/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	--	--	--	--
	3/1/99	1,500	ND(200)	ND(200)	ND(1,000)
	7/13/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
P-11	12/27/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/14/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/11/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL DAMAGED 7/99				
P-12	12/21/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	280	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	430	ND(200)	ND(1,000)
	6/26/96(D)	ND(1,000)	370	ND(200)	ND(1,000)
	9/18/96	ND(2,000)	ND(400)	ND(400)	ND(2,000)
	7/10/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL DAMAGED 7/99				
P-13	12/21/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/14/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/19/96	ND(1,000)	270	ND(200)	ND(1,000)
	9/11/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
P-14	12/21/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/17/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	ND(500)	220	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				

**TRC**

**TABLE 4.8**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL PETROLEUM HYDROCARBONS (TPH)**  
**FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

Page 3 of 4

SAMPLE ID	SAMPLE DATE	TPH <sup>(a)</sup> (in µg/L) BY EPA METHOD 8015M			
		TPH-c/w	TPH-d	TPH-k/Jet Fuel	TPH-z
P-15	12/27/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	250	ND(200)	ND(1,000)
	9/18/96	1,900	ND(200)	ND(200)	ND(1,000)
	7/10/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
P-16A	12/26/95	ND(1,000)	350	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96(D)	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/25/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/16/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	3/4/99	ND(1,000)	210	ND(200)	ND(1,000)
	7/15/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-16B	12/19/95	ND(1,000)	ND(200)	ND(200)	2,300
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/24/96	ND(1,000)	430	ND(200)	ND(1,000)
	WELL ABANDONED 8/96				
P-16C	9/12/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	3/2/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/14/99	1,200	ND(200)	ND(200)	ND(1,000)
P-17	12/21/95	ND(1,000)	750	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	--	--	--	--
	3/4/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/15/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-18	12/26/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/12/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/18/96(D)	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	--	--	--	--
	WELL ABANDONED 10/97				
P-19	12/26/95	ND(1,000)	330	ND(200)	ND(1,000)
	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/25/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/17/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	WELL ABANDONED 10/97				
P-20	12/27/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	1,600	ND(200)	ND(1,000)
	6/25/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/16/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	--	--	--	--
	3/4/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/4/99(D) <sup>(b)</sup>	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/16/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/16/99(D) <sup>(b)</sup>	ND(1,000)	ND(200)	ND(200)	ND(1,000)
P-21	12/26/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/25/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/17/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	--	--	--	--
	WELL ABANDONED 10/97				

**TRC**

**TABLE 4.8**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL PETROLEUM HYDROCARBONS (TPH)**  
**FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

Page 4 of 4

SAMPLE ID	SAMPLE DATE	TPH <sup>(1)</sup> (in µg/L) BY EPA METHOD 8015M			
		TPH-c/w	TPH-d	TPH-k/Jet Fuel	TPH-z
P-22	12/20/95	ND(1,000)	ND(200)	ND(200)	1,000
	3/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/20/96	ND(1,000)	390	ND(200)	ND(1,000)
	9/12/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/9/97	--	--	--	--
	3/3/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/15/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
P-23	12/20/95	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	3/14/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/20/96	ND(1,000)	230	ND(200)	ND(1,000)
	9/11/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/8/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
	12/20/95	ND(2,000)	6,200	ND(400)	ND(2,000)
	3/19/95	ND(5,000)	10,000	ND(1,000)	ND(5,000)
P-24	6/24/96	ND(2,000)	4,100	ND(400)	ND(1,000)
	9/17/96	ND(2,000)	ND(200)	ND(400)	ND(2,000)
	9/17/96(D)	ND(2,000)	ND(200)	ND(400)	ND(2,000)
	7/9/97	ND(500)	ND(200)	ND(200)	ND(1,000)
	3/3/99	ND(1,000)	450	ND(200)	ND(1,000)
	7/15/99	1,600	ND(200)	ND(200)	ND(1,000)
	WELL ABANDONED 10/97				
	12/26/95	ND(1,000)	1,200	ND(200)	ND(1,000)
P-25	3/19/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	6/26/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	9/18/96	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/10/97	--	--	--	--
	7/10/97(D)	--	--	--	--
	WELL ABANDONED 10/97				

WW:2000Kps\DR\GirWalkuta (12/27/2014)

<sup>(1)</sup> Only detected analytes are reported in table; results of all analyses are reported in laboratory reports.

<sup>(2)</sup> Duplicate sample for P-20 is identified as P-29 in laboratory reports.

<sup>(3)</sup> Duplicate sample for P-20 is identified as P-30 in laboratory reports.

TPH-d      Total Petroleum Hydrocarbons - Diesel Range

TPH-k      Total Petroleum Hydrocarbons - Kerosene Range

TPH-z      Total Petroleum Hydrocarbons - Z-Oil

TPH-c/w    Total Petroleum Hydrocarbons - Crude Oil/Waste Oil

µg/L       Micrograms per liter

ND( )      Analyte not detected above the practical quantitation limit (in parentheses)

(D)        Duplicate sample

--        Not sampled

**TABLE 4.9**

**SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
TOTAL PETROLEUM HYDROCARBONS (TPH)  
BRC PROPERTY, TORRANCE, CALIFORNIA**

Sample ID	Sample Date	TPH <sup>1)</sup> (in µg/L) BY EPA METHOD 8015M			
		TPH-c/w	TPH-d	TPH-k	TPH-z
BL-1	3/4/99	ND(1,000)	560	ND(200)	ND(1,000)
	3/4/99 <sup>(2)</sup>	ND(1,000)	450	ND(200)	ND(1,000)
	7/13/99	ND(1,000)	1,300	ND(200)	ND(1,000)
BL-2	3/3/99	--	--	--	ND(1,000)
	7/14/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
BL-3	3/3/99	--	--	--	--
	7/15/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
BL-4	3/2/99	--	--	--	--
	7/14/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
BL-5	3/4/99	ND(1,000)	610	ND(200)	ND(1,000)
	7/13/99	ND(1,000)	1,700	ND(200)	ND(1,000)
BL-6	3/1/99	--	--	--	--
	7/16/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
	7/16/99 <sup>(3)</sup>	ND(1,000)	ND(200)	ND(200)	ND(1,000)
BL-7	3/2/99	--	--	--	--
	7/14/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)
BL-8	3/2/99	--	--	--	--
	7/13/99	ND(1,000)	ND(200)	ND(200)	ND(1,000)

99-200/Rpca/DrGrWaRcFa (11/19/99/mm)

Only detected analytes are reported in table; results of all analyses are reported in laboratory reports.

Duplicate sample for BL-1 is identified as B-17 in laboratory reports.

<sup>(3)</sup> Duplicate sample for BL-6 is identified as B-15 in laboratory reports.

- TPH-d Total Petroleum Hydrocarbons - Diesel Range  
 TPH-k Total Petroleum Hydrocarbons - Kerosene Range  
 TPH-c/w Total Petroleum Hydrocarbons - Crude Oil/Waste Oil  
 TPH-z Total Petroleum Hydrocarbons - Z-Oil  
 µg/L Micrograms per liter  
 ND( ) Analyte not detected above the practical quantitation limit (in parentheses)  
 -- Not sampled

**INDUSTRIAL LIGHT METALS SITE**

Summary of Groundwater Analytical Results – Metals

TABLE 4.10

**SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
DISSOLVED METALS, FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

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DISSOLVED METALS <sup>(1)</sup> (in $\mu\text{g/L}$ )																			
SAMPLE ID	SAMPLE DATE	Arsenic (SM 3114B)	Selenium (SM 3114B)	Aluminum (EPA Method 6010)	Barium (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron(2)	Lead (EPA Method 7421)	Molybdenum (EPA Method 6010)	Nickel (EPA Method 6010)	Zinc (EPA Method 6010)	Hexavalent Chromium (EPA Method 7196)	Magnesium (EPA Method 6010)	Copper (EPA Method 6010)	Mercury (EPA Method 7470)	Vanadium (EPA Method 6010)	
P-1	1/24/95	4.8	ND(2)	ND(50)	ND(100)	ND(5)	1.100	ND(10)	ND(50)	ND(10)	ND(50)	ND(10)	22	1,100	46,000	ND(10)	ND(10)		
	3/17/95	2	2.2	604	ND(100)	ND(5)	785	ND(10)	388	ND(5)	ND(10)	21	ND(50)	780	44,000	ND(10)	ND(10)		
	12/21/95	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1,450	ND(10)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	1,280	51,000	ND(10)		
	12/27/95(D)	ND(2)	ND(2)	ND(50)	ND(100)	10	1,350	ND(10)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	1,120	51,000	ND(10)	ND(10)	
	3/19/96	ND(2)	2.0	ND(50)	ND(100)	ND(10)	1,290	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	920	54,000	ND(10)	ND(10)	
	6/26/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1,290	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	1,260	52,000	ND(10)	ND(10)	
	6/26/96(D)	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1,260	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	9/18/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1,040	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	7/10/97	--	--	ND(50)	--	--	--	--	--	ND(5)	--	--	--	--	--	--	--	--	
	7/10/97(D)	--	--	ND(50)	--	--	--	--	--	ND(5)	--	--	--	--	--	--	--	--	
	3/4/99	ND(2)	4.1	ND(50)	112	ND(5)	1,370	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	7/16/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1,070	ND(50)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
P-2	1/27/95	12	2	ND(50)	110	ND(5)	ND(10)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	280	ND(50)	ND(10)	77	ND(10)	
	3/17/95	9.2	2.2	--	53	199	ND(5)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	6.3	ND(50)	ND(50)	58	ND(10)	
	12/27/95	3.6	ND(2)	1,830	129	ND(10)	ND(5)	ND(10)	ND(10)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	3/19/96	3.8	ND(2)	13,900	ND(100)	ND(10)	12	ND(50)	41,600	ND(5)	ND(50)	ND(50)	ND(50)	2,650	69	ND(10)	346	ND(10)	
	3/19/96(D)	6.2	ND(2)	12,800	138	ND(10)	8.3	ND(50)	51,600	ND(5)	ND(50)	ND(50)	ND(50)	3,690	98	ND(10)	820	ND(10)	
	6/20/96	3.6	ND(2)	296	199	ND(10)	ND(5)	ND(50)	8.150	ND(5)	ND(50)	ND(50)	ND(50)	3,360	ND(50)	ND(10)	27,000	ND(10)	
	6/20/96(D)	3.6	ND(2)	503	198	ND(10)	ND(5)	ND(50)	7.840	ND(5)	ND(50)	ND(50)	ND(50)	3,210	ND(50)	ND(10)	130,000	ND(10)	
	9/17/96	ND(2)	ND(2)	97	165	ND(10)	ND(5)	ND(50)	1,810	ND(5)	ND(50)	ND(50)	ND(50)	1,840	ND(50)	ND(10)	131,000	ND(10)	
	7/8/97	--	--	ND(50)	--	ND(10)	--	--	ND(5)	--	ND(5)	--	ND(5)	--	ND(10)	ND(10)	133,000	ND(10)	
	3/2/99	2.2	ND(2)	ND(50)	161	ND(5)	ND(10)	ND(50)	1,550	ND(5)	ND(50)	ND(50)	ND(50)	--	ND(10)	--	--	ND(10)	
	7/13/99	ND(2)	ND(2)	ND(50)	152	ND(10)	ND(5)	ND(50)	1--	ND(5)	ND(50)	ND(50)	ND(50)	1--	ND(10)	ND(10)	2.5J	ND(10)	
P-3	1/24/95	3.6	ND(2)	ND(50)	110	ND(5)	ND(10)	ND(10)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	3/17/95	2.2	ND(2)	ND(50)	113	ND(5)	ND(10)	ND(50)	187	ND(5)	ND(10)	ND(10)	ND(50)	142	ND(10)	60,000	ND(10)	ND(10)	
	1/22/95	2.4	ND(2)	ND(50)	133	ND(10)	8.8	ND(10)	ND(50)	ND(5)	ND(10)	ND(10)	ND(50)	13	ND(10)	72,000	ND(10)	ND(10)	
	3/14/96	2.2	ND(2)	ND(50)	136	ND(10)	10	ND(50)	ND(5)	ND(5)	ND(10)	ND(10)	ND(50)	10	ND(10)	76,000	ND(10)	ND(10)	
	6/19/96	3.0	ND(2)	ND(50)	126	ND(10)	10	ND(50)	ND(5)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	9/11/96	3.7	ND(2)	ND(50)	133	ND(10)	14	ND(50)	ND(5)	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	
	7/8/97	--	--	ND(50)	--	ND(10)	--	--	ND(5)	--	ND(5)	--	ND(5)	--	ND(10)	ND(10)	77,000	ND(10)	
	3/2/99	3.0	ND(2)	ND(50)	111	ND(5)	ND(10)	ND(50)	8.8	ND(5)	ND(50)	ND(50)	ND(50)	1440	ND(50)	ND(10)	129	ND(10)	
	7/13/99	3.6	ND(2)	ND(50)	152	ND(10)	ND(5)	ND(50)	1--	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	9.4	ND(10)	
P-4	1/26/95	2.2	ND(2)	ND(50)	111	ND(5)	ND(10)	ND(50)	12	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	142	ND(10)	
	3/17/95	2.8	ND(2)	ND(50)	130	ND(5)	ND(10)	ND(50)	10	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	22	ND(10)	
	1/22/95	2.1	ND(2)	ND(50)	135	13	ND(10)	ND(50)	427	ND(10)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	334	ND(10)	
	3/18/96	2.2	ND(2)	ND(50)	127	ND(10)	385	ND(50)	ND(5)	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	20	ND(10)	
	9/16/96	ND(2)	ND(2)	ND(50)	147	ND(10)	280	ND(50)	ND(5)	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	280	ND(10)	
	7/9/97	--	--	--	1,450	--	--	--	--	ND(5)	--	--	--	--	--	--	140	--	
	WELL ABANDONED 10/97														--				
P-5	1/26/95	12	ND(2)	ND(50)	130	ND(5)	ND(10)	ND(10)	6,240	ND(5)	ND(10)	ND(10)	ND(50)	ND(10)	ND(10)	ND(10)	1,370	ND(10)	
	3/17/95	5.6	ND(2)	314	ND(100)	ND(5)	ND(10)	ND(10)	4,580	7.4	ND(10)								

TABLE 4.1.0  
SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
DISSOLVED METALS, FORMER ILM FACILITY, TORRANCE, CALIFORNIA  
(Continued)

SAMPLE ID	SAMPLE DATE	DISSOLVED METALS <sup>(1)</sup> (in $\mu\text{g/L}$ )														
		Arsenic (SM 3114B)	Selenium (SM 3114B)	Barium (EPA Method 6010)	Aluminum (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron(2)	Lead (EPA Method 7421)	Molybdenum (EPA Method 6010)	Nickel (EPA Method 6010)	Titanium (EPA Method 7470)	Copper (EPA Method 6010)	Mercury (EPA Method 7470)	Vanadium (EPA Method 6010)
P-6B	3/3/99	2.3	ND(2)	ND(50)	268	ND(5)	ND(10)	ND(50)	5.3	ND(5)	ND(50)	ND(50)	ND(10)	12	4.9	ND(10)
	7/14/99	ND(2)	ND(2)	ND(50)	350	ND(10)	ND(5)	ND(50)	-	ND(5)	ND(50)	806	ND(10)	6.7	-	ND(10)
P-7	3/17/95	2.2	ND(2)	733	ND(100)	ND(5)	ND(10)	ND(10)	806	ND(5)	ND(50)	104	ND(10)	20	ND(10)	ND(10)
	3/17/95(D)	ND(2)	ND(2)	154	ND(100)	ND(5)	ND(10)	ND(10)	104	ND(5)	ND(50)	126	ND(10)	22	ND(10)	ND(10)
	12/21/95	2.0	ND(2)	ND(50)	ND(100)	ND(10)	ND(5)	ND(10)	ND(5)	ND(5)	ND(50)	ND(10)	ND(10)	14	ND(10)	ND(10)
	3/18/96	2.8	ND(2)	ND(50)	ND(100)	ND(10)	ND(5)	ND(10)	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	34,000	ND(10)	-
	6/24/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(5)	ND(10)	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	70	ND(10)	ND(10)
	9/16/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(5)	ND(10)	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	47	ND(10)	ND(10)
	7/9/97	--	--	ND(50)	--	--	--	--	--	ND(5)	ND(50)	ND(50)	ND(10)	--	--	ND(10)
	3/4/99	5.9	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	--	--	ND(10)
	7/15/99	5.0	ND(2)	ND(50)	108	ND(10)	ND(50)	ND(50)	--	ND(5)	ND(50)	ND(50)	ND(10)	11	2.8	--
P-8	3/16/95	ND(2)	4.1	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	2.0	--	ND(10)
	WELL ABANDONED 8/96															ND(10)
P-9	3/16/95	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	16	ND(10)	ND(10)
	12/20/95	2.2	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(50)	12	ND(5)	ND(50)	ND(50)	ND(10)	30	20	86,000
	3/18/96	3.6	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(50)	15	ND(5)	ND(50)	ND(50)	ND(10)	17	67,000	ND(10)
	6/26/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(50)	ND(50)	16	ND(5)	ND(50)	ND(50)	ND(10)	70,000	ND(10)	--
	9/12/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(50)	ND(50)	13	ND(5)	ND(50)	ND(50)	ND(10)	16	64,000	ND(10)
	7/9/97	--	--	ND(50)	--	--	--	--	--	ND(5)	ND(50)	ND(50)	ND(10)	14	68,000	ND(10)
	WELL ABANDONED 10/97													--	--	ND(10)
P-9B	3/3/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	12	ND(50)	ND(50)	ND(50)	ND(10)	15	22	ND(10)
	7/14/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	10	ND(5)	ND(50)	ND(50)	ND(10)	ND(50)	ND(10)	ND(10)
P-10	3/16/95	5.8	2.6	ND(5)	ND(100)	ND(5)	ND(10)	ND(50)	28	ND(5)	ND(50)	ND(50)	ND(10)	30	30	58,000
	12/19/95	2.6	2.6	ND(5)	ND(100)	ND(5)	ND(10)	ND(50)	28	ND(5)	ND(50)	ND(50)	ND(10)	24	30	ND(10)
	3/14/96	ND(2)	2.4	ND(5)	ND(100)	ND(5)	ND(10)	ND(50)	30	ND(5)	ND(50)	ND(50)	ND(10)	ND(50)	30	ND(10)
	6/18/96	2.6	2.0	ND(5)	ND(100)	ND(5)	ND(10)	ND(50)	29	ND(5)	ND(50)	ND(50)	ND(10)	ND(50)	31	ND(10)
	9/1/96	3.3	2.1	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	28	ND(50)	ND(50)	ND(50)	ND(10)	ND(50)	25	ND(10)
	7/8/97	--	--	ND(50)	--	--	--	--	--	ND(5)	ND(50)	ND(50)	ND(10)	--	--	ND(10)
	3/1/99	ND(2)	2.6	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	30	ND(50)	ND(50)	ND(50)	ND(10)	--	35	--
P-11	7/13/99	ND(2)	2.0	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	31	ND(5)	ND(50)	ND(50)	ND(10)	24	31	--
	7/13/99	ND(2)	2.0	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	13	ND(5)	ND(50)	ND(50)	ND(10)	11	33	--
	12/27/95	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	13	ND(5)	ND(50)	ND(50)	ND(10)	19	ND(50)	ND(10)
	3/14/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	15	ND(5)	ND(50)	ND(50)	ND(10)	19	139,000	ND(10)
	6/19/96	ND(2)	2.0	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	23	ND(5)	ND(50)	ND(50)	ND(10)	17	138,000	ND(10)
	9/1/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	19	ND(5)	ND(50)	ND(50)	ND(10)	20	118,000	ND(10)
	7/8/97	--	--	ND(50)	--	--	--	--	--	ND(5)	ND(50)	ND(50)	ND(10)	21	139,000	ND(10)
	WELL ABANDONED 10/97													--	--	ND(10)
P-12	12/21/95	6.2	2.0	ND(50)	112	ND(10)	18	ND(50)	21	ND(5)	ND(50)	ND(5)	ND(10)	12	21	63,000
	3/19/96	2.6	2.4	ND(50)	170	ND(10)	22	ND(50)	177	ND(5)	ND(50)	ND(5)	ND(10)	11	66,000	ND(10)
	6/26/96(D)	2.7	2.4	ND(50)	160	ND(10)	25	ND(50)	9.5	ND(5)	ND(50)	ND(5)	ND(10)	23	60,000	ND(10)
	9/18/96	2.8	2.5	ND(50)	162	ND(10)	25	ND(50)	236	ND(5)	ND(50)	ND(5)	ND(10)	25	60,000	ND(10)
	7/10/97	--	--	ND(50)	--	--	--	--	ND(5)	ND(5)	ND(50)	ND(5)	ND(10)	24	59,000	ND(10)
	3/3/99	2.1	ND(2)	ND(50)	190	ND(5)	26	ND(5)	58	1,190	ND(5)	ND(50)	ND(10)	21	17	--
	WELL DAMAGED 7/99													--	0.20	--
P-13	12/21/95	6.2	7.8	ND(50)	ND(50)	ND(5)	ND(10)	ND(50)	81	ND(5)	ND(50)	ND(5)	ND(10)	19	ND(10)	ND(10)
	3/14/96	ND(2)	8.2	ND(50)	ND(50)	ND(5)	ND(10)	ND(50)	44	ND(5)	ND(50)	ND(5)	ND(10)	15	22,000	ND(10)
	6/19/96	2.0	8.6	ND(50)	ND(50)	ND(5)	ND(10)	ND(50)	38	ND(5)	ND(50)	ND(5)	ND(10)	10	22,000	ND(10)
	9/11/96	2.5	6.6	ND(50)	ND(50)	ND(5)	ND(10)	ND(50)	35	ND(5)	ND(50)	ND(5)	ND(10)	12	24,000	ND(10)
	7/8/97															

TABLE 4.10  
SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
DISSOLVED METALS, FORMER ILM FACILITY, TORRANCE, CALIFORNIA  
(Continued)

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DISSOLVED METALS <sup>(1)</sup> (in $\mu\text{g/L}$ )																			
SAMPLE ID	SAMPLE DATE	Arsenic (SM 3114B)	Selenium (SM 3114B)	Aluminum (EPA Method 6010)	Barium (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron(2)	Led (EPA Method 7471)	Molybdenum (EPA Method 6010)	Nickel (EPA Method 6010)	Titanium (EPA Method 6010)	Zinc (EPA Method 6010)	Magnesium (EPA Method 7196)	Copper (EPA Method 6010)	Mercury (EPA Method 7470)	Vanadium (EPA Method 6010)	
P-14	12/21/95	2.4	2.0	ND(50)	ND(100)	ND(10)	2.820	ND(10)	ND(5)	ND(10)	ND(50)	ND(10)	ND(10)	2,600	34,000	ND(10)	--	ND(10)	
	3/19/96	2.8	3.2	ND(50)	ND(100)	ND(10)	2.170	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	1,240	34,000	ND(10)	--	ND(10)	
	6/26/96	ND(2)	3.0	ND(50)	ND(100)	ND(10)	1.860	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	12	32,000	20	--	ND(10)	
	9/17/96	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	1.590	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	1,360	32,000	ND(10)	--	ND(10)	
	7/10/97	--	--	ND(50)	--	--	--	--	--	--	--	--	--	1,640	32,000	ND(10)	--	ND(10)	
WELL ABANDONED 10/97																			
P-15	12/27/95	2.8	ND(2)	ND(50)	ND(100)	ND(10)	388	ND(10)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	370	34,000	ND(10)	--	ND(10)	
	3/19/96	3.0	ND(2)	ND(50)	ND(100)	ND(10)	218	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	120	30,000	ND(10)	--	ND(10)	
	6/25/96	2.7	ND(2)	ND(50)	ND(100)	ND(10)	86	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	78	27,000	ND(10)	--	ND(10)	
	9/18/96	2.1	ND(2)	ND(50)	ND(100)	ND(10)	73	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	72	25,000	ND(10)	--	ND(10)	
	7/10/97	--	--	ND(50)	--	--	--	--	--	ND(5)	--	--	--	--	--	--	--	--	
WELL ABANDONED 10/97																			
P-16A	12/26/95	4.8	2.6	ND(50)	ND(100)	ND(10)	26	ND(10)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	28	ND(50)	ND(50)	ND(10)	--	
	3/18/96	5.4	2.4	ND(50)	ND(100)	ND(10)	23	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	12	68,000	ND(10)	--	ND(10)	
	3/18/96(D)	7.2	2.0	ND(50)	ND(100)	ND(10)	24	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	10	69,000	ND(10)	--	ND(10)	
	6/25/96	5.4	3.6	ND(50)	ND(100)	ND(10)	60	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	15	52,000	ND(10)	--	ND(10)	
	9/16/96	4.5	ND(2)	ND(50)	ND(100)	ND(10)	23	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	24	82,000	ND(10)	--	ND(10)	
	7/9/97	--	--	ND(50)	--	--	--	--	ND(5)	--	--	--	--	--	--	--	--	--	
	3/4/99	7.5	2.0	-ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	--	ND(50)	ND(50)	ND(10)	--	
	7/15/99	8.3	ND(2)	ND(50)	ND(100)	ND(10)	52	ND(50)	--	ND(5)	ND(50)	ND(10)	ND(10)	14	--	ND(10)	ND(10)	--	
	12/19/95	2.8	ND(2)	ND(50)	ND(100)	ND(10)	158	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	15	--	ND(10)	ND(10)	--	
	12/19/95(D)	ND(2)	2.8	-ND(50)	ND(100)	ND(10)	157	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	94	ND(50)	ND(50)	ND(10)	--	
	3/18/96	ND(2)	2.4	ND(50)	ND(100)	ND(10)	168	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	94	ND(50)	ND(50)	ND(10)	--	
	6/24/96	ND(2)	5.8	-ND(50)	ND(100)	ND(10)	492	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	72	ND(50)	ND(50)	ND(10)	--	
	WELL DESTROYED 8/96																		
P-16C	9/12/96	3.0	5.3	-ND(50)	ND(100)	ND(10)	388	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	335	ND(50)	ND(50)	ND(10)	--	
	7/9/97	--	--	-ND(50)	--	--	--	--	ND(5)	--	--	--	--	--	--	--	--	--	
	3/2/99	ND(2)	5.1	-ND(50)	ND(100)	ND(5)	424	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(10)	37	ND(50)	ND(50)	ND(10)	--	
	7/14/99	ND(2)	4.1	-ND(50)	ND(100)	ND(10)	484	ND(50)	ND(10)	ND(50)	ND(50)	ND(10)	ND(10)	5.4	--	ND(10)	ND(10)	--	
	12/21/95	2.0	ND(2)	ND(50)	ND(100)	ND(10)	1,030	ND(50)	ND(10)	ND(50)	ND(50)	ND(10)	ND(10)	53	ND(50)	ND(50)	ND(10)	--	
	3/19/96	2.6	ND(2)	ND(50)	ND(100)	ND(10)	967	ND(50)	ND(10)	ND(50)	ND(50)	ND(10)	ND(10)	13	ND(50)	ND(50)	ND(10)	--	
	7/10/97	--	--	-ND(50)	--	--	--	--	ND(5)	--	ND(50)	ND(50)	ND(10)	ND(10)	640	62,000	ND(10)	--	ND(10)
	3/4/99	ND(2)	ND(2)	-ND(50)	ND(100)	ND(5)	30	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	1,140	55,000	ND(10)	--	ND(10)	
	7/15/99	ND(2)	ND(2)	-ND(50)	ND(100)	ND(10)	23	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	40	--	ND(10)	ND(10)	--	
	12/26/95	3.4	4.2	--	ND(100)	ND(10)	19	ND(10)	268	ND(5)	ND(10)	ND(10)	ND(10)	10	63,000	ND(10)	ND(10)	--	
	3/19/96	3.0	2.2	--	ND(100)	ND(10)	14	ND(50)	108	ND(5)	ND(50)	ND(10)	ND(10)	32	52,000	ND(10)	--	ND(10)	
	9/12/96	2.9	3.3	--	ND(50)	ND(100)	10	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	19	54,000	ND(10)	--	ND(10)	
	9/12/96(D)	3.3	3.3	--	ND(50)	ND(100)	18	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	38	54,000	ND(10)	--	ND(10)	
	7/8/97	--	--	ND(50)	--	--	--	--	ND(5)	--	--	--	--	18	ND(50)	ND(50)	ND(10)	--	
	WELL ABANDONED 10/97																		
P-19	12/26/95	2.6	4.0	-ND(50)	ND(100)	ND(10)	8.8	ND(10)	ND(50)	ND(5)	ND(50)	ND(10)	ND(10)	42	ND(50)	ND(50)	ND(10)	--	
	3/19/96	ND(2)	3.8	-ND(50)	ND(100)	ND(10)	13	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	13	--	ND(10)	ND(10)	--	
	6/25/96	ND(2)	4.2	-ND(50)	ND(100)	ND(10)	18	ND(50)	ND(5)	ND(									



**TABLE 4.11**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**DISSOLVED METALS, BRC PROPERTY, TORRANCE, CALIFORNIA**

SAMPLE ID	SAMPLE DATE	DISSOLVED METALS <sup>(1)</sup> (in µg/L)													
		Arsenic (SM 3114B)	Selenium (SM 3114B)	Aluminum (EPA Method 6010)	Barium (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron <sup>(3)</sup>	Lead (EPA Method 7421)	Manganese (EPA Method 6010)	Molybdenum (EPA Method 6010)	Nickel (EPA Method 6010)	Titanium (EPA Method 6010)	Copper (EPA Method 6010)
BL-1	3/4/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(10)	ND(10)	ND(10)	ND(10)	ND(0.2)
	3/4/99(2)	ND(2)	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	50	ND(5)	ND(50)	ND(10)	ND(10)	ND(10)	ND(0.2)
BL-2	7/13/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(10)	ND(50)	—	ND(5)	16	ND(50)	ND(50)	ND(50)	ND(0.2)
	3/3/99	3.9	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(50)	ND(10)	ND(10)	ND(10)	ND(0.2)
BL-3	7/14/99	2.5	ND(2)	ND(50)	ND(100)	ND(10)	ND(10)	ND(50)	—	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
	3/3/99	ND(2)	ND(2)	ND(50)	270	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
BL-4	7/15/99	ND(2)	ND(2)	ND(50)	397	ND(10)	10	ND(50)	—	ND(5)	13.0	ND(50)	ND(50)	ND(10)	ND(10)
	3/2/99	2.1	ND(2)	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(50)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
BL-5	7/14/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(10)	ND(50)	—	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
	3/4/99	ND(2)	2.6	ND(50)	ND(100)	ND(5)	ND(10)	ND(50)	ND(5)	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
BL-6	7/13/99	ND(2)	ND(2)	ND(50)	ND(100)	ND(10)	ND(10)	ND(50)	—	ND(5)	ND(5)	ND(50)	ND(50)	ND(10)	ND(0.2)
	3/1/99	2.1	2.0	ND(50)	32	ND(5)	213	ND(50)	ND(5)	ND(5)	ND(50)	ND(50)	ND(50)	ND(10)	ND(0.2)
BL-7	7/16/99	60R	ND(2)	ND(50)	ND(100)	ND(10)	203	ND(50)	—	ND(5)	ND(50)	ND(10)	ND(50)	ND(10)	ND(0.2)
	7/16/99(D) <sup>(3)</sup>	10R	ND(2)	ND(50)	ND(100)	ND(10)	210	ND(50)	—	ND(5)	ND(50)	ND(10)	ND(50)	ND(10)	ND(0.2)
BL-8	3/2/99	4.8	ND(2)	ND(50)	ND(100)	ND(5)	16	ND(50)	ND(5)	ND(5)	ND(50)	ND(10)	ND(10)	ND(10)	ND(0.2)
	7/14/99	2.6	ND(2)	ND(50)	ND(100)	ND(10)	24	ND(50)	—	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)
BL-9	3/2/99	2.4	ND(2)	ND(50)	122	ND(5)	11	ND(50)	ND(5)	—	ND(50)	ND(50)	ND(10)	ND(10)	ND(0.2)
	7/13/99	ND(2)	ND(2)	ND(50)	285	ND(10)	15	ND(50)	—	ND(5)	ND(10)	ND(50)	ND(50)	ND(10)	ND(0.2)

99-24WkpsDrGrWRfpa (11/15/99) (b)

(1) Only detected analytes are reported in table; results of all analyses are reported in laboratory reports.

(2) Duplicate sample for BL-1 is identified as BL-17 in laboratory reports.

(3) Dissolved iron analyzed in the field using Hach Field Test Kit.

(4) Duplicate sample for BL-6 is identified as BL-15 in laboratory reports.

**µg/L**  
Micrograms per liter  
**ND( )** Analytes not detected above the particle quantitation limit (in parentheses)  
**(D)** Duplicate sample  
**-** Not sampled

Data Validation Qualifiers (for more information, see Data Validation Report).  
**U** Not detected  
**R** Unusable/rejected based on field duplicate evaluation



**TABLE 4.12**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL METALS, FORMER ILM FACILITY, TORRANCE, CALIFORNIA**  
(Continued)

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TOTAL METALS <sup>(1)</sup> (in µg/L)																			
SAMPLE ID	SAMPLE DATE	Arsenic (SM 3114B)	Selenium (SM 3114B)	Aluminum (EPA Method 6010)	Barium (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron (EPA Method 6010)	Molybdenum (EPA Method 7421)	Manganese (EPA Method 6010)	Nickel (EPA Method 6010)	Titanium (EPA Method 6010)	Zinc (EPA Method 6010)	Copper (EPA Method 6010)	Vanadium (EPA Method 6010)	Mercury (EPA Method 7470)	Thallium (EPA Method 7441)	
P-6B	3/3/99	12	ND(2)	38,500	55,6	ND(5)	66	19	44,600	26	ND(10)	—	50	1,970	156	53	1,31	ND(0.2)	
	7/14/99	8.5	ND(2)	23,200	514	ND(5)	39	13	30,600	17	ND(10)	1,310	ND(50)	1,340	116	24U	78	ND(0.2)	
P-7	3/17/95(D)	2.2	ND(2)	5,820	ND(100)	ND(5)	18	ND(10)	8,160	ND(5)	ND(10)	150	ND(50)	.364	64	ND(10)	ND(50)	ND(5)	
	12/21/95	7.0	ND(2)	10,400	ND(100)	ND(10)	28	ND(10)	14,300	ND(5)	ND(10)	126	ND(50)	160	57	ND(10)	ND(50)	ND(5)	
	3/18/96	6.4	ND(2)	5,080	ND(100)	ND(10)	16	ND(50)	7,380	6.8	ND(50)	68	ND(50)	656	106	ND(10)	ND(50)	ND(5)	
	6/24/96	2.6	ND(2)	2,800	ND(100)	ND(10)	10	ND(50)	4,450	ND(5)	ND(50)	90	ND(50)	.326	100	10	20	ND(0.2)	
	9/16/96	2.4	ND(2)	1,630	ND(100)	ND(10)	7	ND(50)	2,300	ND(5)	ND(50)	77	ND(50)	.197	ND(50)	14	ND(0.2)	ND(1)	
	7/9/97	—	—	5,920	—	—	—	—	—	—	ND(5)	—	—	—	—	—	—	ND(0.2)	
	3/4/99	9.0	ND(2)	1,3,800	166	ND(5)	20	ND(10)	15,300	14	ND(10)	11	ND(50)	727	60	31	37	ND(0.2)	
	7/15/99	9.2	ND(2)	14,000	184	ND(5)	22	ND(10)	16,500	9.8	ND(10)	.452	ND(50)	762	66	27U	38	ND(0.2)	
P-8	3/16/95	2.4	3.8	1,700	ND(100)	ND(5)	53	ND(10)	2,670	ND(5)	ND(10)	.38	ND(50)	91	ND(50)	ND(50)	ND(50)	ND(5)	
	WELL ABANDONED 8/96															ND(0.2)			
P-9	3/16/95	ND(2)	ND(2)	308	ND(100)	ND(5)	12	ND(10)	482	482	ND(10)	21	ND(50)	ND(10)	57	ND(10)	ND(0.2)		
	12/20/95	8.4	ND(2)	3,580	ND(100)	ND(10)	19	ND(10)	3,570	ND(5)	ND(10)	114	ND(50)	136	52	ND(10)	ND(50)	ND(5)	
	3/18/96	12	ND(2)	15,800	131	ND(10)	58	ND(50)	23,900	8.1	ND(50)	256	ND(50)	1,080	110	16	48	ND(0.2)	
	6/26/96	2.6	ND(2)	4,140	ND(100)	ND(10)	24	ND(50)	5,930	ND(5)	ND(50)	.57	ND(50)	.287	80	11	15	ND(0.2)	
	9/12/96	16	ND(2)	20,400	202	ND(10)	56	ND(50)	25,890	29-	ND(50)	.450	ND(50)	1,250	186	38	59	0.30	
	7/9/97	—	—	3,570	—	—	—	—	—	ND(5)	—	—	—	—	—	—	—	ND(1)	
	WELL ABANDONED 10/96															ND(0.2)			
P-9B	3/3/99	2.3	ND(2)	4,600	100	ND(5)	32	ND(10)	6,530	ND(5)	ND(10)	—	ND(50)	295J	ND(50)	ND(50)	ND(0.2)		
	7/14/99	ND(2)	ND(2)	1,240	91	ND(5)	ND(10)	1,990	ND(5)	ND(10)	20	ND(50)	80	ND(50)	ND(10)	ND(10)	ND(5)		
P-10	3/16/95	6.4	2.8	2,600	ND(100)	ND(5)	27	ND(10)	2,390	ND(5)	ND(10)	47	ND(50)	105	ND(50)	ND(50)	ND(50)	ND(5)	
	12/19/95	9.4	2.8	1,120	ND(100)	ND(10)	26	ND(10)	1,000	ND(5)	ND(10)	153	ND(50)	ND(10)	51	ND(10)	ND(50)	ND(5)	
	3/14/96	3.6	2.0	3,750	ND(100)	ND(10)	32	ND(50)	4,680	ND(5)	ND(50)	80	ND(50)	192	62	ND(10)	ND(50)	ND(5)	
	6/18/96	5.2	2.0	1,520	ND(100)	ND(10)	27	ND(50)	1,830	ND(5)	ND(50)	.64	ND(50)	71	ND(50)	ND(10)	ND(50)	ND(5)	
	9/11/96	3.8	2.1	2,100	ND(100)	ND(10)	29	ND(50)	2,580	ND(5)	ND(50)	.44	ND(50)	77	ND(50)	ND(10)	ND(50)	ND(1)	
	7/8/97	—	—	1,690	—	—	—	—	ND(5)	—	—	—	—	—	—	—	—	ND(1)	
	3/1/99	ND(2)	2.8	1,96	76	ND(5)	26	ND(10)	190	ND(5)	ND(10)	—	ND(50)	ND(10)	—	ND(10)	ND(50)	ND(5)	
	7/13/99	—2.4	ND(2)	1,180J	74	ND(5)	26	ND(10)	1,730	ND(5)	ND(10)	29	ND(50)	69	ND(50)	10	ND(10)	ND(50)	ND(5)
P-11	12/22/95	6.8	ND(2)	16,200	170	ND(10)	62	ND(10)	18,600	5.9	ND(10)	199	ND(50)	1,090	57	11	85	ND(0.2)	
	3/14/96	4.6	ND(2)	2,850	124	ND(10)	21	ND(50)	4,190	ND(5)	ND(50)	51	ND(50)	188	52	ND(10)	12	ND(0.2)	
	6/19/96	4.0	2.0	1,690	ND(100)	ND(10)	21	ND(50)	1,490	ND(5)	ND(50)	.60	ND(50)	.54	ND(50)	ND(10)	ND(50)	ND(5)	
	9/11/96	4.1	ND(2)	8,550	146	ND(10)	35	ND(50)	10,900	ND(5)	ND(50)	105	ND(50)	.535	ND(50)	15	22	ND(0.2)	
	7/8/97	—	—	2,180	—	—	—	—	ND(5)	—	—	—	ND(50)	—	—	—	—	ND(0.2)	
	WELL ABANDONED 10/97															—			
P-12	12/21/95	17	2.2	47,200	323	ND(10)	109	42	59,600	7.1	ND(10)	626	ND(10)	2,480	230	.38	159	0.31	
	3/19/96	8.8	3.2	31,000	308	ND(10)	91	57	45,500	16	ND(50)	547	ND(50)	2,740	300	41	95	1.2	
	6/26/96(D)	5.9	2.3	14,300	208	ND(10)	54	ND(50)	21,100	10	ND(50)	249	ND(50)	950	78	21	46	1.5	
	9/18/96	4.0	ND(2)	4,410	191	ND(10)	63	ND(50)	26,800	10	ND(50)	312	ND(50)	1,220	98	25	54	1.6	
	7/10/97	—	—	852	—	ND(10)	—	—	ND(50)	6,090	ND(5)	92	ND(50)	312	ND(50)	16	0.7	ND(1)	
	3/3/99	3.2	ND(2)	3,100	190	ND(5)	32	53	5,100	ND(5)	ND(10)	—	ND(50)	19	ND(50)	16	0.53	ND(1)	
	WELL DAMAGED 7/99																		

TABLE 4.12  
SUMMARY OF GROUND WATER ANALYTICAL RESULTS  
TOTAL METALS, FORMER ILM FACILITY, TORRANCE, CALIFORNIA  
(Continued)

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**TABLE 4.13**  
**SUMMARY OF GROUND WATER ANALYTICAL RESULTS**  
**TOTAL METALS, BRC PROPERTY, TORRANCE, CALIFORNIA**

SAMPLE ID	SAMPLE DATE	TOTAL METALS <sup>(1)</sup> (in $\mu\text{g/L}$ )																
		Arsenic (SM 3114B)	Selenium (SM 3114B)	Aluminum (EPA Method 6010)	Barium (EPA Method 6010)	Cadmium (EPA Method 6010)	Chromium (EPA Method 6010)	Cobalt (EPA Method 6010)	Iron (EPA Method 6010)	Lead (EPA Method 7421)	Molybdenum (EPA Method 6010)	Nickel (EPA Method 6010)	Titanium (EPA Method 6010)	Copper (EPA Method 6010)	Vanadium (EPA Method 6010)	Mercury (EPA Method 7470)	Thallium (EPA Method 7841)	
BL-1	3/4/99	110J	2.4	97,800J	367J	ND(5)	195J	73J	154,000J	55J	12	123	4,920J	394J	110J	317J	0.29	ND(5)
	3/4/99(2)	166J	3.5	131,000J	508J	ND(5)	280J	111J	229,000J	87J	17	182	7,510	654J	146J	459J	0.46	ND(5)
	7/13/99	157	ND(2)	122,000J	589	ND(5)	258	109	217,000	74	15	180	7,000	568	182	428	0.71	ND(5)
BL-2	3/3/99	59	ND(2)	41,500	200	ND(5)	119	24	63,400	13	ND(10)	5J	2,870	146	39	126	ND(0.2)	ND(5)
	7/14/99	146	ND(2)	90,300J	448	ND(5)	280	58	155,000	38	ND(10)	130	6,150	371	53	286	ND(0.2)	ND(5)
BL-3	3/3/99	20	ND(2)	24,400	328	ND(5)	92	10	37,400	8.9	ND(10)	ND(50)	1,360	86	ND(10)	75	ND(0.2)	ND(5)
	7/15/99	60	ND(2)	62,900	722	ND(5)	243	32	100,000	27	ND(10)	83	3,410	232	ND(10)	189	0.22J	ND(5)
BL-4	3/2/99	12	ND(2)	36,600	168	ND(5)	114	17	49,300	15	ND(10)	54	2,240	119	33	118	ND(0.2)	ND(5)
	7/14/99	13	ND(2)	38,600J	191	ND(5)	117	20	54,000	-	ND(10)	52	2,360	131	36	125	ND(0.2)	ND(5)
BL-5	3/4/99	12	3.4	18,000	110	ND(5)	84	ND(10)	28,900	10	ND(10)	ND(50)	946	122	30	55	ND(0.2)	ND(5)
	7/13/99	17	ND(2)	28,000J	220	ND(5)	122	12	47,200	15	ND(10)	ND(50)	1,440	128	20	88	ND(0.2)	ND(5)
BL-6	3/1/99	109	2.2	89,300	453	ND(5)	450	39	120,000	20	14	108	4,140	279	ND(10)	202	0.27	ND(5)
	7/16/99	275	ND(2)	284,000	1,720	7.9	1,160	158	431,000	111	28	375	10,800	1,070	ND(10)	729	ND(0.2)	ND(5)
	7/16/99(3)	338	2.1	244,000	1,530	5.3	1,040	137	375,000	100	24	324	9,150	939	ND(10)	639	0.74	ND(5)
BL-7	3/2/99	86	ND(2)	62,300	203	ND(5)	255	31	106,000	23	11	99	3,740	256	29	188	ND(0.2)	ND(5)
	7/14/99	99	ND(2)	66,100J	258	ND(5)	285	36	116,000	32	11	109	3,830	262	64	210	ND(0.2)	ND(5)
BL-8	3/2/99	25	ND(2)	22,100	188	ND(5)	95	ND(10)	32,900	8	ND(10)	ND(50)	1,420	74	ND(10)	62	ND(0.2)	ND(5)
	7/13/99	106	ND(2)	86,500J	663	ND(5)	330	42	142,000	36	ND(10)	118	5,190	315	70	250	0.22	ND(5)

99-AWWRP-DRGW-BF5 (11/1999 revision)

- (1) Only detected analytes are reported in table; results of all analyses are reported in laboratory reports.  
 (2) Duplicate sample for BL-1 is identified as B-17 in laboratory reports.  
 (3) Duplicate sample for BL-6 is identified as B-15 in laboratory reports.

$\mu\text{g/L}$  Micrograms per liter  
 ND( ) Analytes not detected above the particle quantitation limit (in parentheses)  
 - Not sampled  
 J Estimated, detected

Data Validation Qualifiers (for more information, see Data Validation Report, Appendix G).  
 U Not detected  
 J Estimated, detected

**INDUSTRIAL LIGHT METALS SITE**

Summary of Natural Attenuation Parameters

TABLE 4.14

**SUMMARY OF NATURAL ATTENUATION PARAMETERS ANALYTICAL RESULTS  
JULY 1999 GROUND WATER MONITORING  
FORMER ILM FACILITY, TORRANCE, CALIFORNIA**

METHOD	PARAMETER	UNITS	P-1	P-2	P-3	P-6B	P-7	P-9B	P-10	P-16A	P-16C	P-17	P-20	P-20(D)	P-22	P-24
			SAMPLE LOCATION													
Ground Water Quality Parameters																
EPA 310.1	Alkalinity	mg/L	447	511	654	376	253	380	356	240	213	280	358	353	314	414
EPA 350.1	Ammonia Nitrogen	mg/L	ND(0.02)	0.46	ND(0.02)	0.11	0.22	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.05	0.02	ND(0.02)	0.07
Field	Specific Conductivity	µmhos/cm	1,570	4,010	2,260	1,750	1,393	2,493	1,883	2,433	3,310	1,887	2,430	2,430	2,396	1,503
EPA 415.1	D.O.C.	mg/L	8.1	6.7	7.0	2.9	7.2	6.9	5.3	2.0	6.0	5.0	8.11	4.41	4.9	6.1
EPA 365.1	Ortho-Phosphate	mg/L	0.12	ND(0.05)	0.09	0.15	1.9	0.08	0.95	4.7	0.11	0.10	0.17	0.17	2.2	2.3
Field	Redox Potential	mV	348.73	-10.27	299.97	190.53	118.93	290.27	247.13	230.73	267.3	289.67	299.03	299.03	277.3	259.60
Field	pH	pH Units	7.39	7.13	7.28	7.62	7.47	7.25	7.51	7.29	7.30	7.37	7.26	7.26	7.09	7.57
Field	Temperature	°C	24.2	23.5	23.3	23.6	24.5	23.0	24.1	23.5	22.9	23.4	23.4	23.4	23.7	22.8
Terminal Electron Acceptor Parameters																
AM19GAX	D.O.	mg/L	5.62	0.78	2.44	2.5	0.82	5.63	7.24	6.44	3.29	6.89	5.36	4.98	4.74	2.7
Field	D.O.	%	69.5	3.0	18.5	19.7	9.8	61.3	82.0	61.9	31.9	80.8	53.5	53.5	52.1	17.1
EPA 353.2	Nitrite/Nitrate	mg/L	14	5.5	12	10	7.5	13	11	9.6	70	7.0	15	15	5.1	1.9
EPA 6010	Iron (total)	µg/L	2,280	4,620	819	30,600	16,500	1,990	1,730	5,240	4,100	3,890	2,350	2,350	690	5,180
Field	Iron (dissolved)	µg/L	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0
EPA 6010	Manganese (total)	µg/L	35	1,370	17	1,310	452	20	29	102	89	70	53	49	27	181
EPA 6010	Manganese (dissolved)	µg/L	ND(10)	1,440	ND(10)	806	268	ND(10)	13	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
EPA 300	Sulfate	mg/L	313	427	297	130	77	389	166	97	88	28	95	105	11	64
Field	Hydrogen Sulfide	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM19GAX	Carbon Dioxide	mg/L	64.45	85.86	25.68	20.69	71.23	29.90	28.12	19.68	24.92	51.57	51.72	67.36	27.84	
AM19GAX	Methane	µg/L	0.603	0.12	0.76	4.377	0.086	1.167	0.621	0.536	2.355	0.266	3.302	3.293	0.487	82.54
Degradation Products																
EPA 300	Chloride	mg/L	200	896	409	436	361	374	367	626	980	394	667	675	881	387
AM19GAX	Ethane	ng/L	60	417	ND(5)	26	ND(5)	18	ND(5)	17	11	ND(5)	30	25	52	110
AM19GAX	Ethene	ng/L	16	76	ND(5)	82	ND(5)	17	11	ND(5)	51	ND(5)	10	15	ND(5)	104
Technical Quality Control Data																
AM19GAX	Nitrogen	mg/L	13.74	15.09	16.16	19.58	16.46	15.54	14.93	16.79	20.65	13.85	16.71	15.60	16.48	16.65
AM19GAX	Propane/Propene	ng/L	142	502	ND(10)	50	48	ND(10)	ND(10)	130	ND(10)	184	149	147	153	256

(D) = Field Duplicate  
 mg/L = Milligrams per liter  
 µg/L = Micrograms per liter  
 ng/L = Nanograms per liter  
 ND( ) = Not detected above method detection limit. Number in parentheses is the detection or practical quantitation limit.

D.O.C. = Dissolved Organic Carbon

D.O. = Dissolved Oxygen

mV = millivolts

°C = Degrees Centigrade

% = percent saturation

Specific conductivity, pH, redox potential, temperature and D.O. (Field) result is an average of the last three measurements collected in the field.

TABLE 4.15

**SUMMARY OF NATURAL ATTENUATION PARAMETERS ANALYTICAL RESULTS**  
**JULY 1999 GROUND WATER MONITORING**  
**BRC PROPERTY TORRANCE, CALIFORNIA**

METHOD	PARAMETER	UNITS	SAMPLE LOCATION								
			BL-1	BL-2	BL-3	BL-4	BL-5	BL-6	BL-6(D)	BL-7	BL-8
Ground Water Quality Parameters											
EPA 310.1	Alkalinity	mg/L	544	340	323	257	445	369	373	350	242
EPA 350.1	Ammonia Nitrogen	mg/L	0.04	ND(0.02)	ND(0.02)	0.02	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.02
Field	Specific Conductivity	µmhos/cm	1,797	1,017	4,060	596	1,900	1,530	1,530	950	2,450
EPA 415.1	D.O.C.	mg/L	15	5.2	5.0	4.0	8.5	4.6	1.4	7.5	4.3
EPA 365.1	ortho-Phosphate	mg/L	0.07	0.16	0.13	0.21	0.11	0.17	0.17	0.16	0.11
Field	Redox Potential	mV	192.6	267.73	253.57	275.80	127.17	255.87	255.87	272.90	247.0
Field	pH	pH Units	6.92	7.40	7.04	7.66	7.06	7.36	7.36	7.48	7.44
Field	Temperature	°C	23.9	22.7	23.4	23.0	23.9	22.2	22.2	22.9	23.8
Terminal Electron Acceptor Parameters											
AM19GAX	D.O.	mg/L	0.52	6.13	5.52	6.38	2.97	6.28	7.35	7.47	7.36
Field	D.O.	%	6.8	68.4	58.6	71.0	24.7	75.2	75.2	89.8	86.8
EPA 353.2	Nitrite/Nitrate	mg/L	28	8.2	11.0	3.3	3.7	7.7	7.7	3.8	6.1
EPA 6010	Iron (total)	µg/L	217,000	155,000	100,000	54,000	47,200	431,000	375,000	116,000	142,000
Field	Iron (dissolved)	µg/L	0	0	0	0	0	0	0	0	0
EPA 6010	Manganese (total)	µg/L	3,320	2,680	1,090	945	642	7,490	6,520	1,080	1,280
EPA 6010	Manganese (dissolved)	µg/L	16	ND(10)	13	ND(10)	38	ND(10)	ND(10)	ND(10)	ND(10)
EPA 300	Sulfate	mg/L	151	59	65	94	7.7	72	78	59	29
Field	Hydrogen Sulfide	mg/L	0	0	0	0	0	0	0	0	0
AM19GAX	Carbon Dioxide	mg/L	150.61	36.81	66.26	15.35	98.63	44.34	44.98	25.94	21.28
AM19GAX	Methane	µg/L	3.96	0.614	0.566	1.038	9.815	0.463	0.461	1.154	2.683
Degradation Products											
EPA 300	Chloride	mg/L	251	95	1,140	44	485	331	332	103	770
AM19GAX	Ethane	ng/L	ND(5)	ND(5)	14	ND(5)	16	11	11	ND(5)	ND(5)
AM19GAX	Ethene	ng/L	70	29	29	18	76	37	36	11	22
Technical Quality Control Data											
AM19GAX	Nitrogen	mg/L	13.26	15.91	16.19	16.38	17.30	16.97	19.57	15.33	15.43
AM19GAX	Propane/Propene	ng/L	102	ND(10)	51	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)

99-2000-01000-00000-00000

99-2000-01000-00000-00000

- (D) = Field Duplicate  
 mg/L = Milligrams per liter  
 µg/L = Micrograms per liter  
 ng/L = Nanograms per liter  
 ND() = Not detected above method detection limit. Number in parentheses is the detection or practical quantitation limit.  
 D.O.C. = Dissolved Organic Carbon  
 D.O. = Dissolved Oxygen  
 mV = milliVolts  
 °C = Degrees Centigrade  
 % = Percent saturation

Specific conductivity, pH, redox potential, temperature and D.O. (Field) result is an average of the last three measurements collected in the field.

**TABLE 5.1**

**METAL CONCENTRATIONS IN GROUND WATER  
FORMER ILM FACILITY  
TORRANCE, CALIFORNIA**

METAL	RANGE OF SITE DISSOLVED METAL CONCENTRATIONS IN GROUND WATER	SITE MEAN METAL CONCENTRATIONS IN GROUND WATER (Detects Only)	TYPICAL RANGE OF NATURAL CONCENTRATIONS OF METALS IN GROUND WATER <sup>(1)</sup>
Arsenic	<2.0 to 33	4.8	<1.0 to 30
Barium	<100 to 492	178.39	10 to 500
Chromium	<5.0 to 2,820	275.94	<1.0 to 5.0
Chromium (hexavalent)	<2.0 to 2,600	230.47	Not Listed
Manganese	<10 to 3,690	536.46	<1.0 to 1,000
Selenium	<2.0 to 8.6	3.24	<1.0 to 10
Vanadium	<10 to 11	10.50	<1.0 to 10
Zinc	<10 to 1,500	106.80	<10 to 2,000

99-200/Rpts/GrWaRcFainRe (12/28/99/jb)

Note: All values in  $\mu\text{g}/\text{L}$  or ppb.

(1) Dragun, 1988.

**TABLE 5.2**  
**LABORATORY-DERIVED**  
**REACTION PATHWAY, REACTION HALF-LIFE**  
**AND REACTION PRODUCTS**

Page 1 of 2

CHLORINATED HYDROCARBON		PATHWAY	REACTION HALF-LIFE	REACTION/DEGRADATION PRODUCTS
Ethenes	PCE	Microbial Degradation (A/M/m) (A/M)	<2 days	TCE c-1,2-DCE t-1,2-DCE Vinyl chloride
		Hydrolysis	0.73 yr.	Alcohols Acids
	TCE	Microbial Degradation (A/M/m) (A/M) (A/S)	0.3 yr. at high concentration; minimal at lower concentration	c-1,2-DCE t-1,2-DCE Vinyl chloride
		Hydrolysis	0.9 yr.	Alcohols Acids
	DCEs (cis and trans)	Microbial Degradation (A/M/m) (A/S) (A/M)	8 to 10 weeks with methanogenic aquifer material (cis) 0.5 year under anoxic conditions (trans)	Vinyl Chloride Chloroethane
	Vinyl Chloride	Hydrolysis	<10 yr./slow	Alcohols Acids
		Microbial Degradation (A/M/m) (O/P(mb))	Resistant to biodegradation in aerobic systems. 5 to 6 weeks in sand by methanogenic microorganisms under anaerobic conditions.	CO <sub>2</sub>
	1,1,2,2-Tetrachloroethane	Microbial Degradation (A/M/m) (A/M)	4 weeks to 6 months, aerobic 1 to 4 weeks, anaerobic	1,1,2-TCA
		Dehydrohalogenation	--	TCE
	1,1,1-TCA	Hydrolysis	0.5 to 2.5 yrs	1,1-DCA Acetic Acid
		Dehydrohalogenation	--	1,1-DCE
		Microbial Degradation (A/S) (A/M/m) (A/M)	< 2 days to 2.5 yrs 20 to 39 weeks, aerobic 80 to 156 weeks, anaerobic	1,1-DCA 1,1-DCE c-1,2,-DCE t-1,2-DCE Chloroethane Vinyl Chloride

**TABLE 5.2**

**LABORATORY-DERIVED  
REACTION PATHWAY, REACTION HALF-LIFE  
AND REACTION PRODUCTS**

**(Continued)**

Page 2 of 2

CHLORINATED HYDROCARBON		PATHWAY	REACTION HALF-LIFE	REACTION/DEGRADATION PRODUCTS
Ethanes (Cont'd)	1,1,2-TCA	Dehydrohalogenation	170 yrs	1,1-DCE
	1,1-DCA	Microbial Degradation (A/M/m)	5 to 22 weeks, aerobic 18 to 88 weeks, anaerobic	Vinyl Chloride Chloroethane
	1,2-DCA	Microbial Degradation (O/P/p) (O/P/x) (A/M/m)	Acclimated anaerobic system reports no degradation. Activated sludge system reports 99% removal due to stripping, 1% due to sorption and 0% due to biodegradation in 6 days.	CO <sub>2</sub> Alcohols
	Chloroethane	Hydrolysis	5 - 6 weeks	Ethanol

99-2111/Rpts/DrGrWaRcFa (12/24/99/rm)

Sources: Smith & Dragun, 1984  
 Vogel, Criddle & McCarthy, 1987  
 Howard, 1991  
 Howard, Boethling, Jarvis, Meylan and Michalenko, 1991

Notes:

A - Anaerobic	mb - Mycobacterium
M - Mixed Culture	O - Aerobic
m - Methanogenic Culture	X - Xanthobacter
S - Soil/Aquifer Biological Seed	-- - No Data Available
P - Pure Culture	

**TABLE 5.3**  
**WELL COMPARISON OF CHLORINATED HYDROCARBON  
 AND NATURAL ATTENUATION PARAMETERS**

METHOD	PARAMETER	UNITS	IMPACTED WELLS				BACKGROUND WELLS <sup>(1)</sup>		
			P-1	BL-6	P-20	P-2	BL-5	P-10	BL-8
<b>Chlorinated Hydrocarbon Parameters</b>									
EPA 8260	TCE	µg/L	10,000	5,600	5,400	ND (0.5)	2.7	3.2	18
	PCE	µg/L	78	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	1,1-DCE	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	0.79	ND (0.5)	ND (0.5)
	t-1,2-DCE	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	0.55	ND (0.5)	ND (0.5)
	c-1,2-DCE	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	1.10	ND (0.5)	ND (0.5)
	Vinyl Chloride	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	1,1,1-TCA	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	1,1,2-TCA	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	1,1-DCA	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	0.56	ND (0.5)	ND (0.5)
	1,2-DCA	µg/L	ND (50)	ND (50)	ND (50)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)
<b>Ground Water Quality Parameters</b>									
EPA 310.1	Alkalinity	mg/L	447	369	358	511	445	356	242
EPA 350.1	Ammonia Nitrogen	mg/L	ND (0.02)	ND (0.02)	0.05	0.46	0.02	ND (0.02)	0.02
Field	Specific Conductivity <sup>(2)</sup>	µmhos/cm	1,570	1,530	2,430	4,010	1,900	1,883	2,450
EPA 415.1	D.O.C.	mg/L	8.1	4.6	8.1	6.7	8.5	5.3	4.3
EPA 365.1	ortho-Phosphate	mg/L	0.12	0.17	0.17	ND (0.05)	0.11	0.95	0.11
Field	Redox Potential <sup>(2)</sup>	mV	348.73	255.87	299.03	-10.27	127.17	247.13	247.0
Field	pH <sup>(2)</sup>	pH Units	7.39	7.36	7.26	7.13	7.06	7.51	7.44
Field	Temperature <sup>(2)</sup>	°C	24.2	22.2	23.4	23.5	23.9	24.1	23.8
<b>Terminal Electron Acceptor Parameters</b>									
AM19GAX	D.O.	mg/L	5.62	6.28	5.36	0.78	2.97	7.24	7.36
Field	D.O. <sup>(2)</sup>	% Saturation	69.5	75.2	53.5	3.0	24.7	82.0	68.6
EPA 353.2	Nitrite/Nitrate	mg/L	14	7.7	15	5.5	3.7	11	6.1
EPA 6010	Iron (total)	µg/L	2,280	431,000	2,350	4,620	47,200	1,730	142,000
Field	Iron (dissolved)	µg/L	0	0	0	1.0	0	0	0

Page 1 of 2

TABLE 5.3

**WELL COMPARISON OF CHLORINATED HYDROCARBON  
AND NATURAL ATTENUATION PARAMETERS**  
(Continued)

Page 2 of 2

METHOD	PARAMETER	UNITS	IMPACTED WELLS			BACKGROUND WELLS <sup>(1)</sup>		
			P-1	BL-6	P-20	P-2	BL-5	P-10
<b>Terminal Electron Acceptor Parameters (Cont'd)</b>								
EPA 6010	Manganese (total)	µg/L	35	7,490	53	1,370	642	29
EPA 6010	Manganese (dissolved)	µg/L	ND (10)	ND (10)	ND (10)	1,440	38	13
EPA 300.0	Sulfate	mg/L	313	72	95	427	7.7	ND (10)
Field	Hydrogen Sulfide	mg/L	0	0	0	0	0	0
AM19GAX	Carbon Dioxide	mg/L	44.45	44.34	51.57	64.55	98.63	21.28
AM19GAX	Methane	µg/L	0.603	0.463	3.302	0.12	9.815	0.621
<b>Degradation Products</b>								
EPA 300.0	Chloride	mg/L	200	331	667	896	485	367
AM19GAX	Ethane	ng/L	60	11	25	417	16	ND (5.0)
AM19GAX	Ethene	ng/L	16	37	10	76	76	11
<b>Technical Quality Control Data</b>								
AM19GAX	Nitrogen	mg/L	13.74	16.97	16.71	15.09	17.30	14.93
AM19GAX	Propane/Propene	ng/L	142	ND (10)	149	502	ND (10)	ND (10)

<sup>99.20/NRaps/DRGrWaRCfF<sub>a</sub> (12/28/99/9m)</sup>

(1) Wells upgradient, sidegradient and downgradient at nondetect or at low historical levels of chlorinated hydrocarbons for the site.  
 (2) Specific conductivity, pH, redox potential, temperature and D.O. (field) results are averages of the last three measurements collected in the field, if more than three measurements were collected during the sampling/measurement event.

µg/L	= Micrograms per liter	PCE	= Tetrachloroethene
mg/L	= Milligrams per liter	DCE	= Dichloroethene
ng/L	= Nanograms per liter	TCA	= Trichloroethane
ND	= Not detected above method detection limit. Number in parentheses is the detection or practical quantitation limit.	DCA	= Dichloroethane
D.O.C. =	Dissolved Organic Carbon	TCE	= Trichloroethene
D.O. =	Dissolved Oxygen	°C	= degrees Centigrade
mV	= milliVolts	%	= percent saturation

**DEL AMO STUDY AREA**  
**Trilinear Piper Diagrams**

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# **FINAL GROUNDWATER REMEDIAL INVESTIGATION REPORT**

**DEL AMO STUDY AREA  
LOS ANGELES, CALIFORNIA**

**Volume I  
Text, Tables & Figures**

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**FOR  
SHELL OIL COMPANY  
AND  
THE DOW CHEMICAL COMPANY**

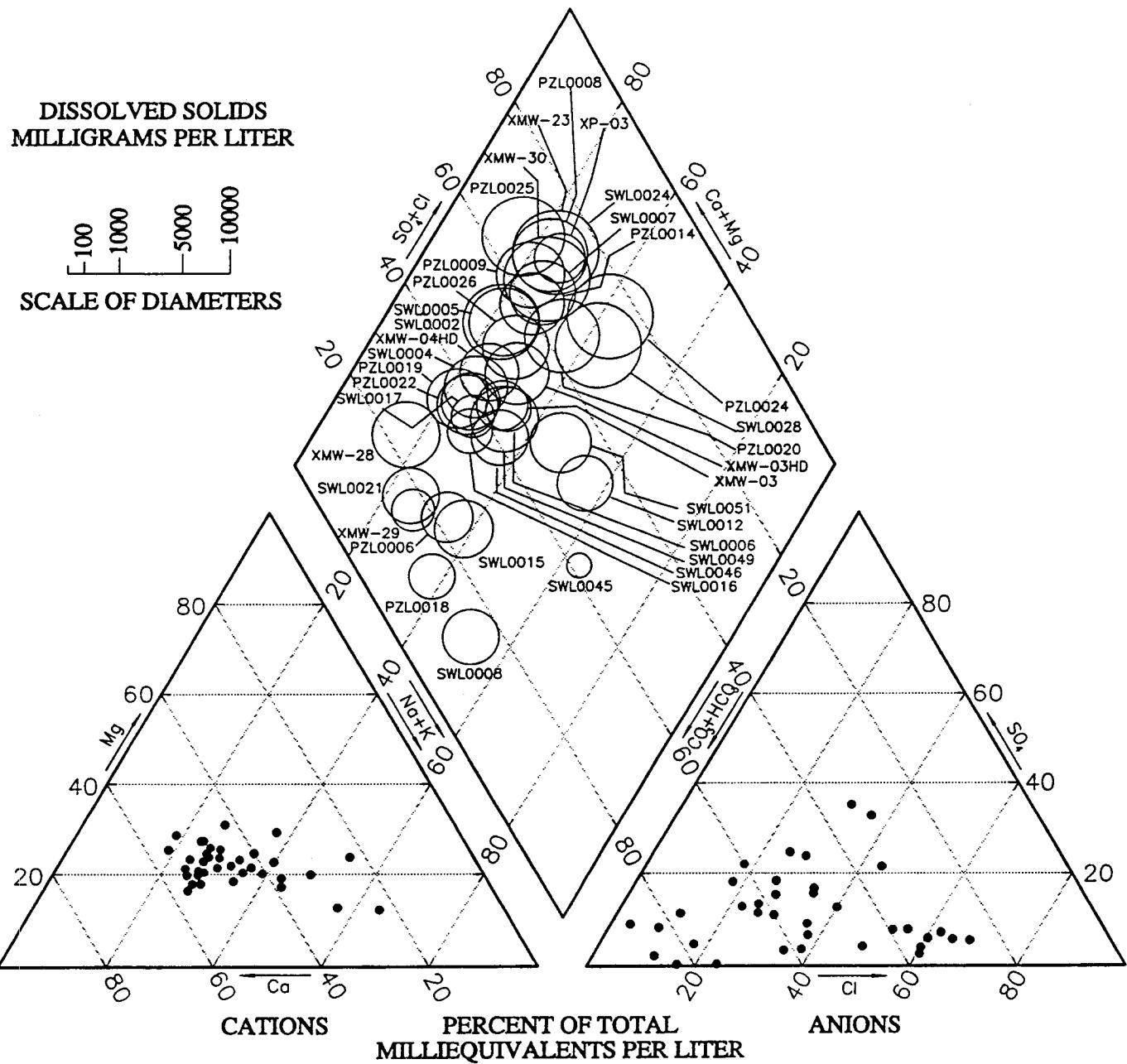
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**PREPARED BY:**



**DAMES & MOORE**

**MAY 15, 1998**



**FIGURE 4.3-1**

**Trilinear Piper Diagram  
Water Table**

Groundwater Remedial Investigation Report  
Del Amo Study Area



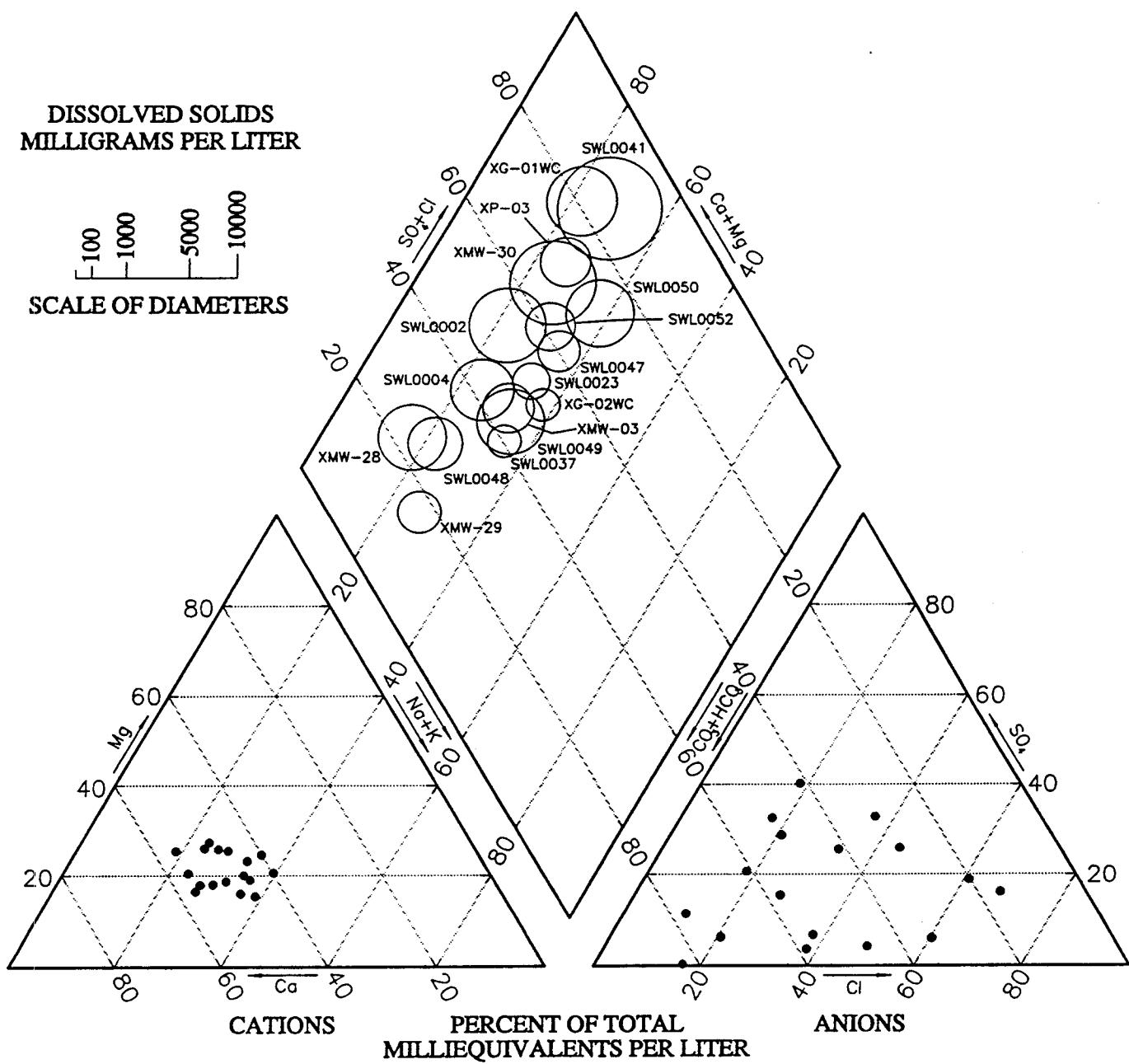


FIGURE 4.3-3

Trilinear Piper Diagram  
Middle Bellflower B Sand

Groundwater Remedial Investigation Report  
Del Amo Study Area

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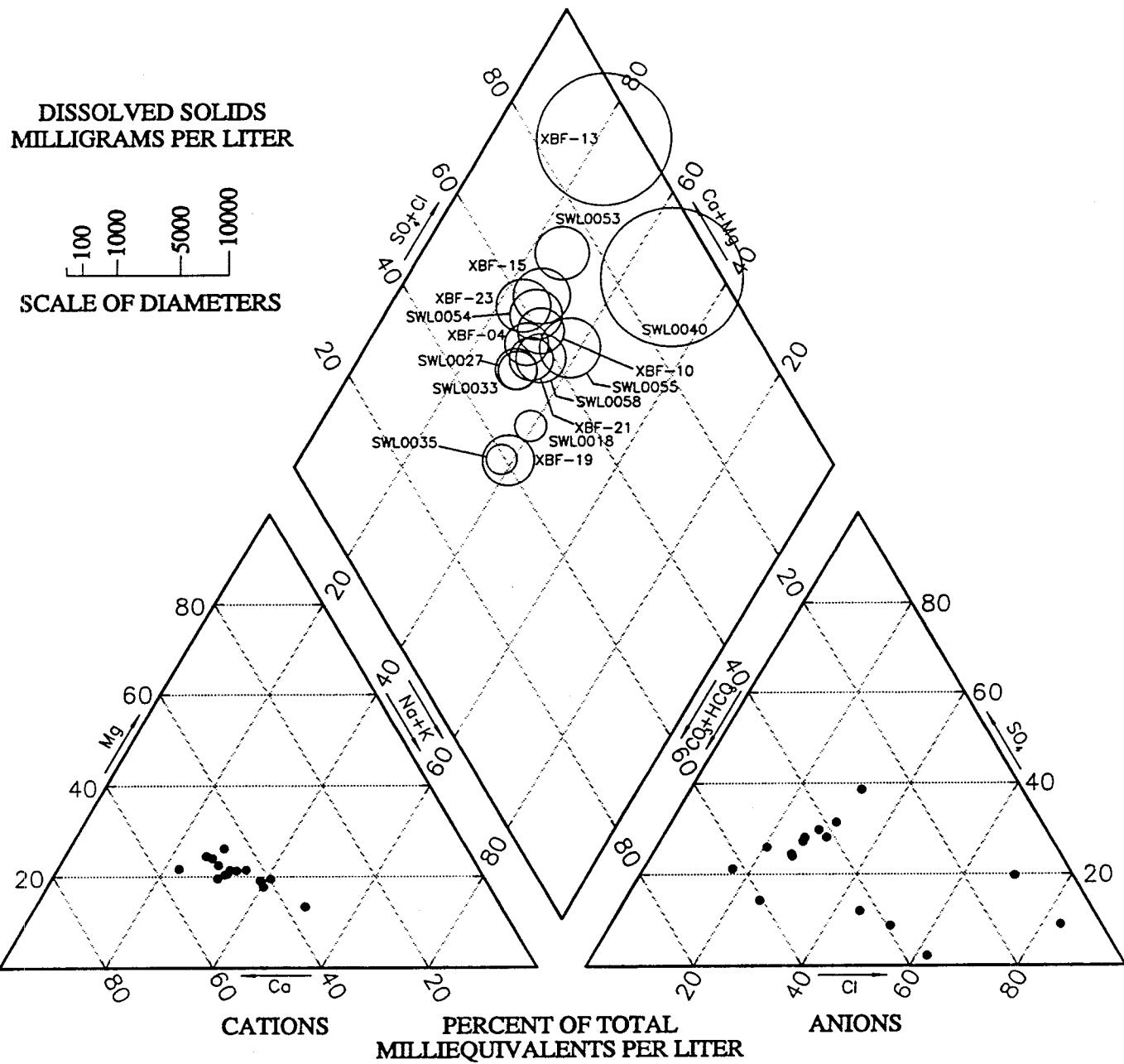
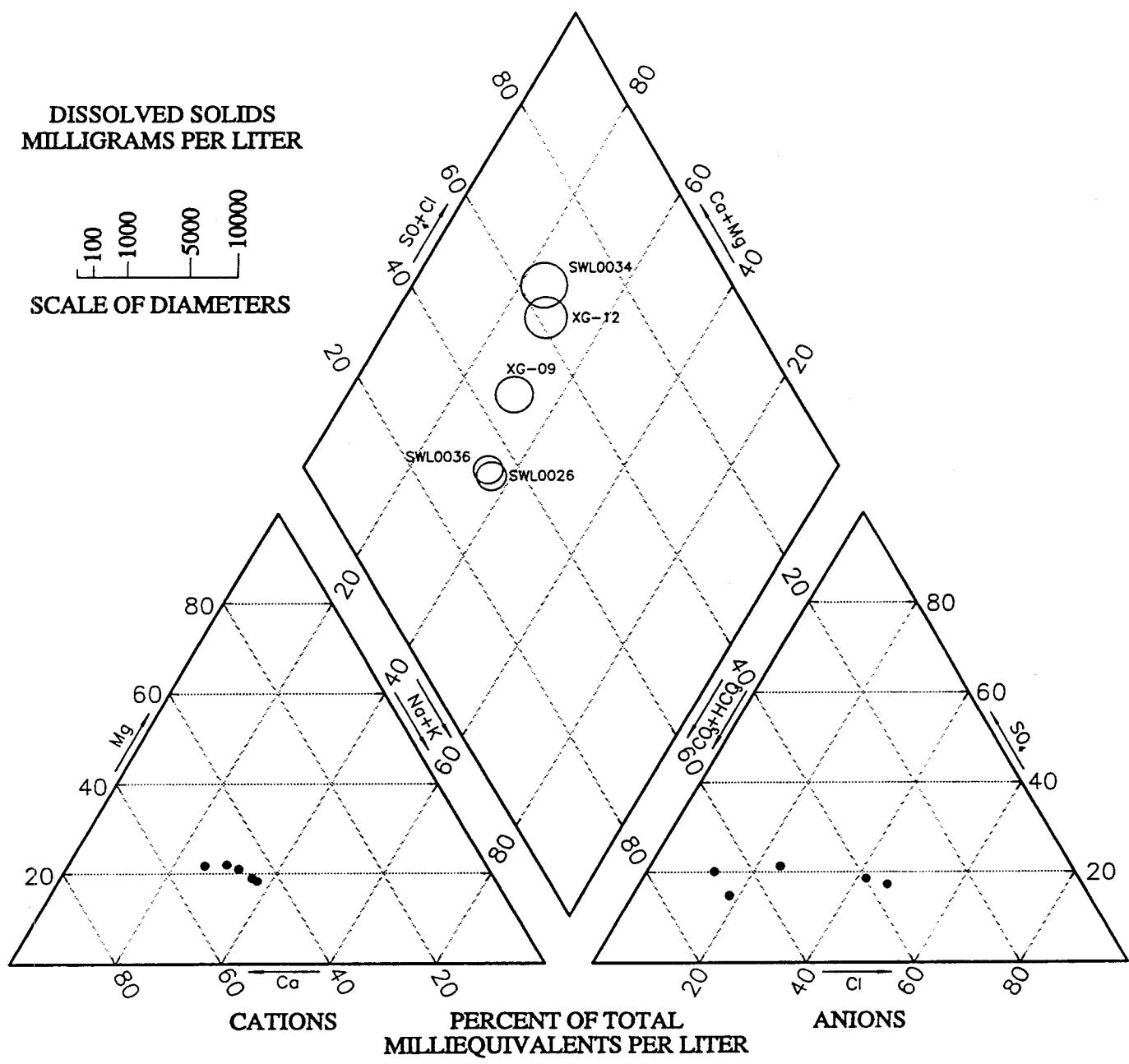


FIGURE 4.3-5

Trilinear Piper Diagram  
Middle Bellflower C Sand

Groundwater Remedial Investigation Report  
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**FIGURE 4.3-7**

**Trilinear Piper Diagram  
Gage Aquifer**

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